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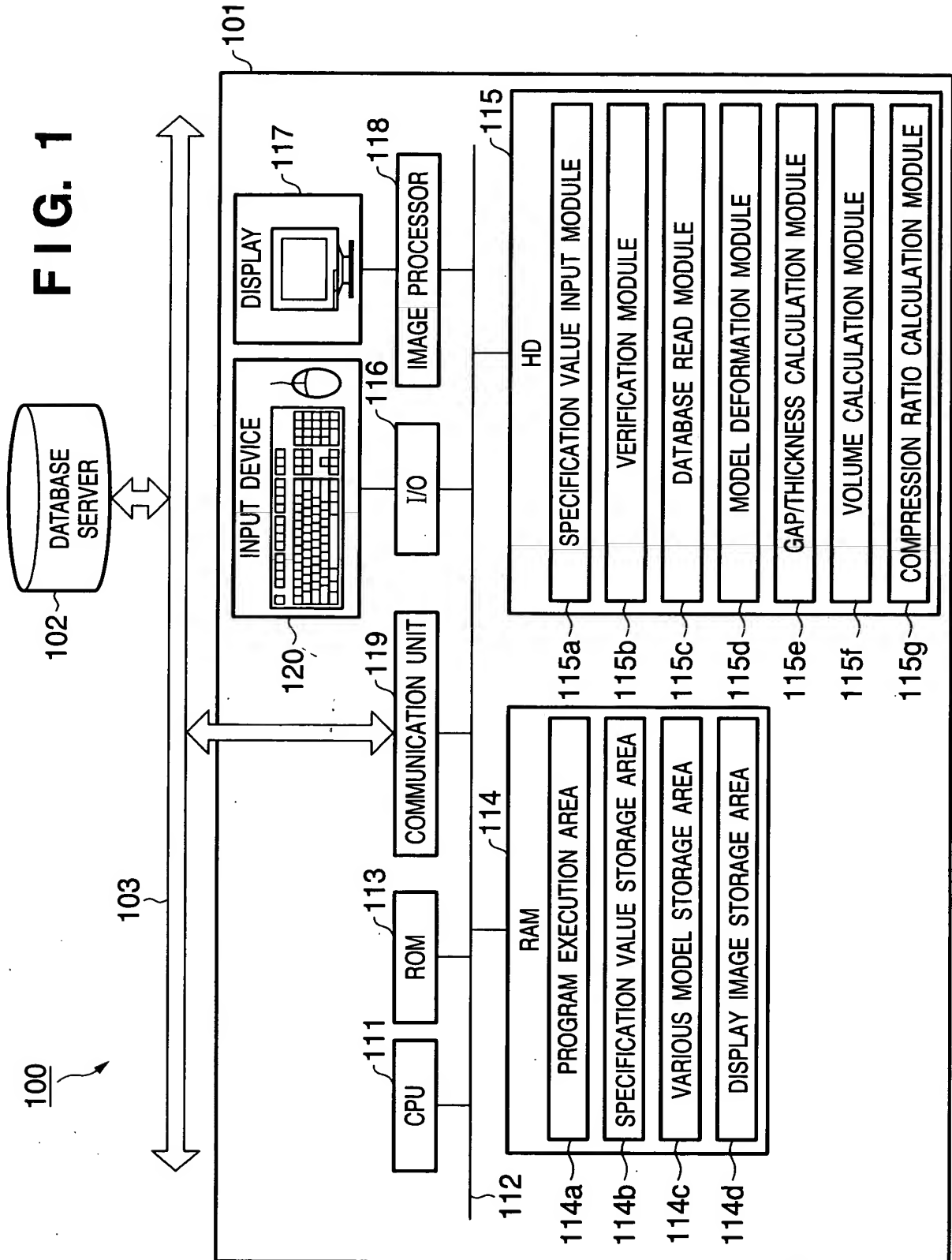
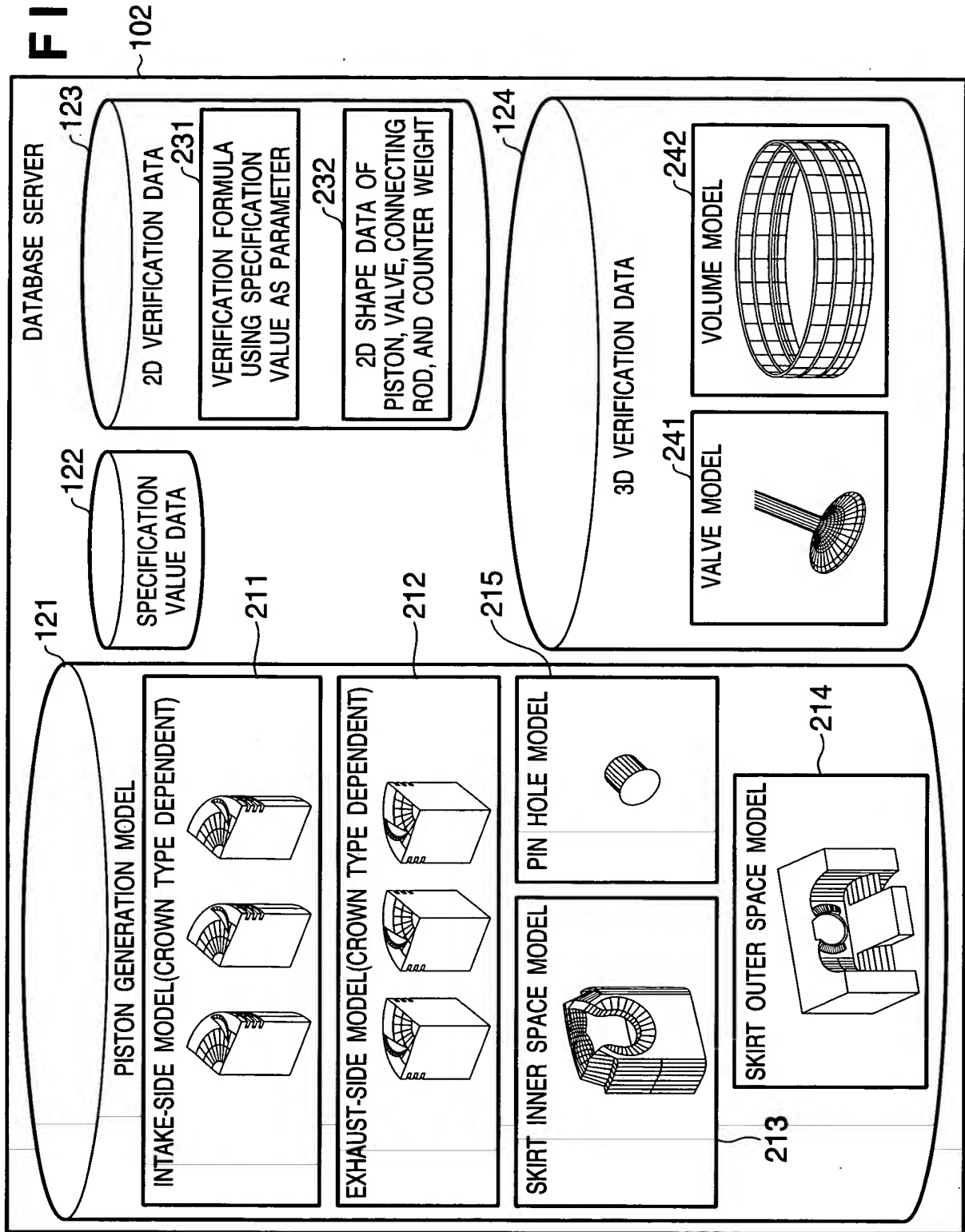
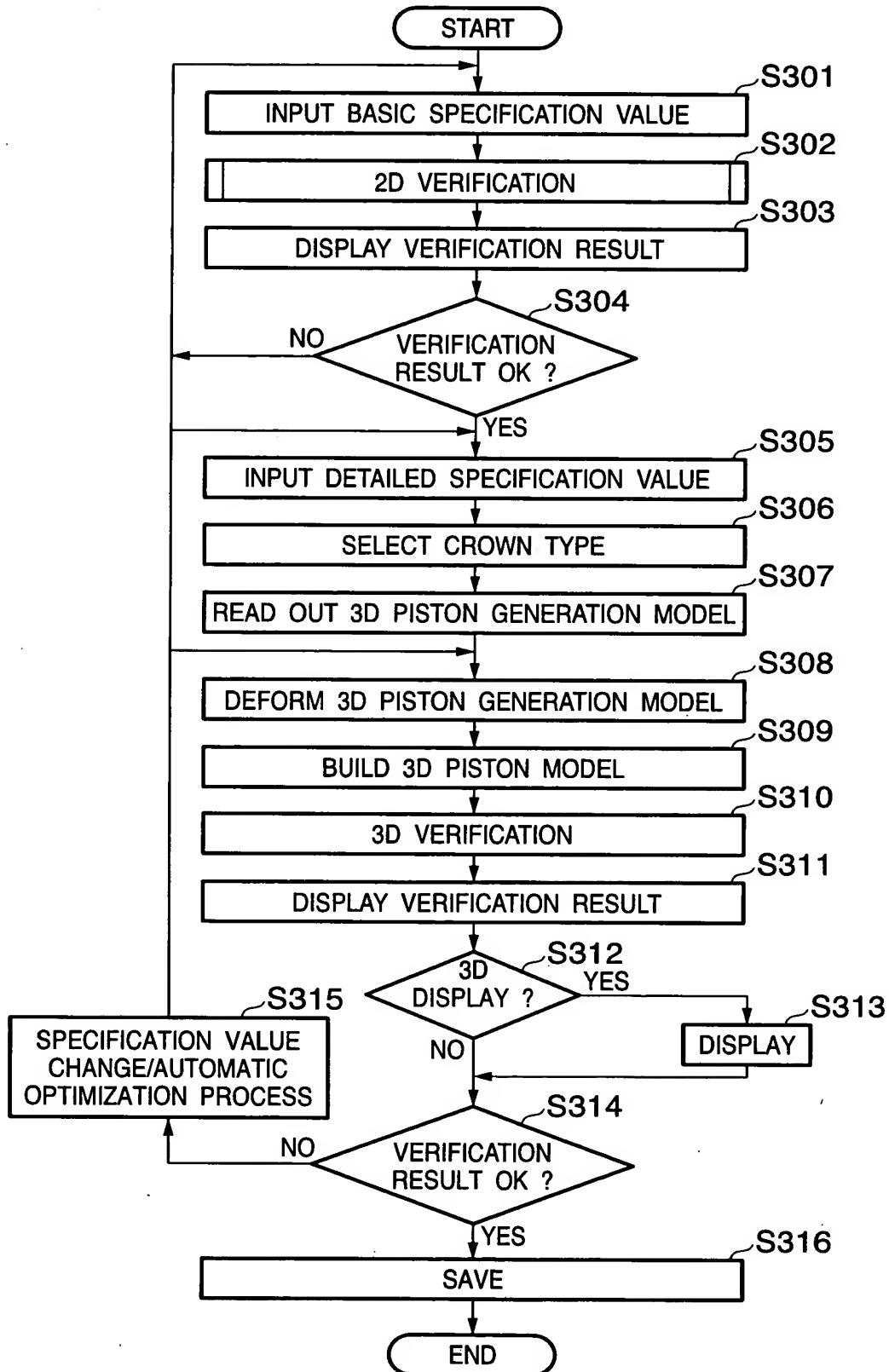


FIG. 2



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## FIG. 3



**FIG. 4A**

SPECIFICATION VALUE INPUT			
TARGET VALUE	TARGET COMPRESSION RATIO : <input type="text" value="**"/>	TARGET CLEARANCE REFERENCE : <input type="text" value="*"/>	mm
	MINIMUM THICKNESS REFERENCE : <input type="text" value="*"/>		mm
CAM LIFT DATA	INTAKE SIDE : <input type="text" value="**/****bt"/>	EXHAUST SIDE : <input type="text" value="**/****bt"/>	
VALVE TIMING	INTAKE SIDE : <input type="text" value="**"/>	EXHAUST SIDE : <input type="text" value="**"/>	°CA
LAYOUT CONDITION	BORE DIAMETER : <input type="text" value="**"/>	CRANK DIAMETER : <input type="text" value="**"/>	mm
	CONNECTING ROD LENGTH : <input type="text" value="**"/>	C/W VIRTUAL DISK RADIUS : <input type="text" value="**"/>	mm
	COMBUSTION CHAMBER CAPACITY : <input type="text" value="**"/>	VALVE CENTER HEIGHT : <input type="text" value="**"/>	mm
	INTAKE VALVE ANGLE : <input type="text" value="**"/>	EXHAUST VALVE ANGLE : <input type="text" value="**"/>	°
PISTON SPECIFICATION VALUE	PISTON DIAMETER : <input type="text" value="**"/>	EXHAUST RECESS CENTER : <input type="text" value="**"/>	mm
	INTAKE RECESS CENTER : <input type="text" value="**"/>	EXHAUST RECESS DEPTH : <input type="text" value="**"/>	mm
	INTAKE RECESS DEPTH : <input type="text" value="**"/>		mm
	CROWN THICKNESS : <input type="text" value="**"/>		mm
DIMENSION INDICATING SHAPE OF SKIRT INNER SPACE DIMENSION INDICATING SHAPE OF SKIRT OUTER SPACE DIMENSION INDICATING POSITION AND SHAPE OF RING GROOVE DIMENSION INDICATING POSITION AND SHAPE OF PIN HOLE			
VALVE SPECIFICATION VALUE	INTAKE VALVE DIAMETER : <input type="text" value="**"/>	EXHAUST VALVE DIAMETER : <input type="text" value="**"/>	mm

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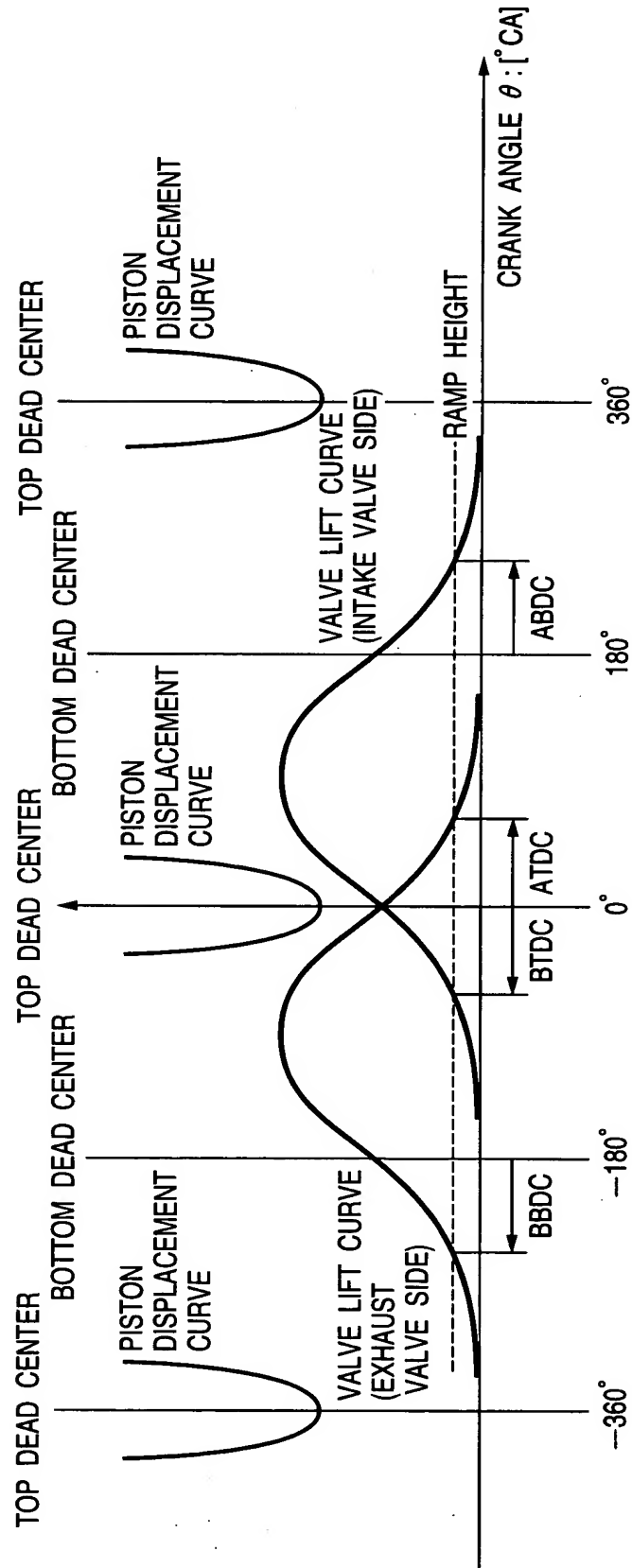
FIG. 4B

2D CALCULATION RESULT		REFERENCE		CALCULATED EVALUATION VALUE	
MINIMUM THICKNESS OF SKIRT PORTION	* mm OR MORE TO * mm OR LESS	: * mm	< 0 >		
PROXIMAL DISTANCE BETWEEN VALVE AND PISTON INTAKE SIDE	* mm OR MORE	: * mm	< 0 >		
EXHAUST SIDE	* mm OR MORE	: * mm	< 0 >		
MINIMUM GAP BETWEEN CONNECTING ROD AND CROWN BACK SIDE(FLAT TYPE BASE)	* mm OR MORE	: * mm	< 0 >		
MINIMUM VALUE BETWEEN COUNTER WEIGHT AND PISTON	* mm OR MORE	: * * mm	< 0 >		
411 3D VERIFICATION(FLAT)	412 3D VERIFICATION(CONVEX TYPE)	413 3D VERIFICATION(CONCAVE TYPE)	RE-INPUT DIMENSIONS		

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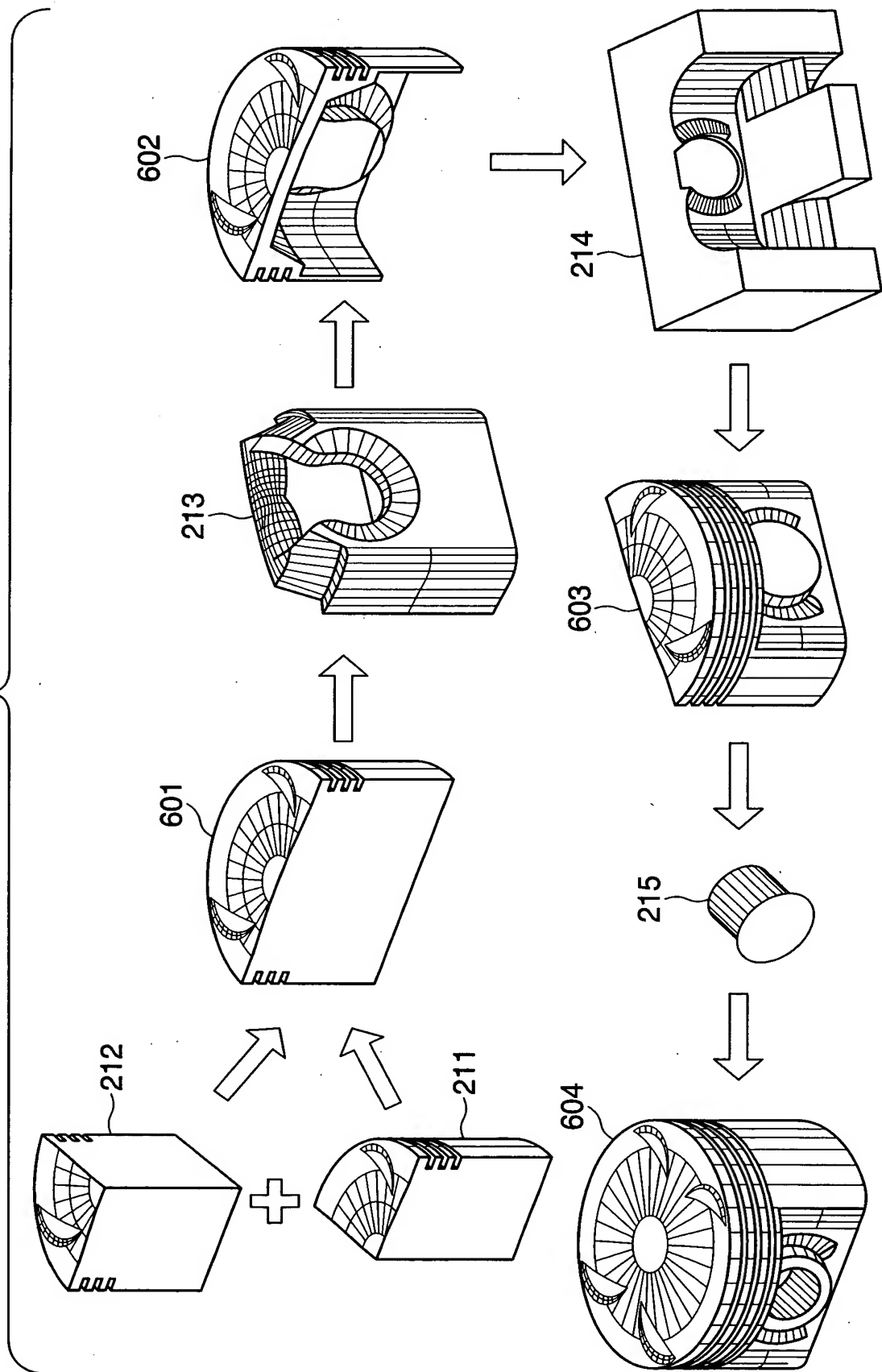
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FIG. 5



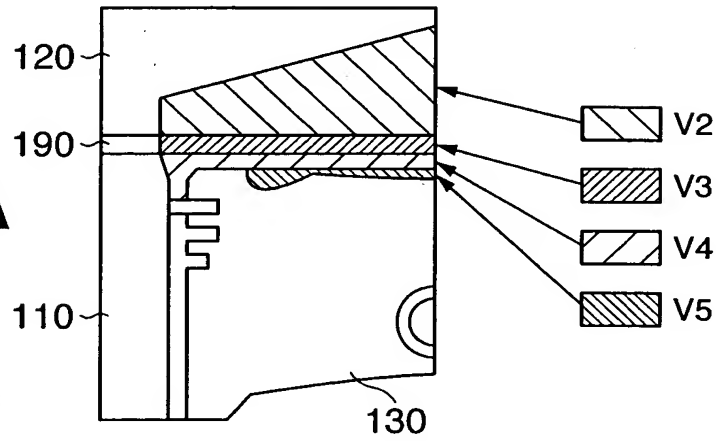
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FIG. 6

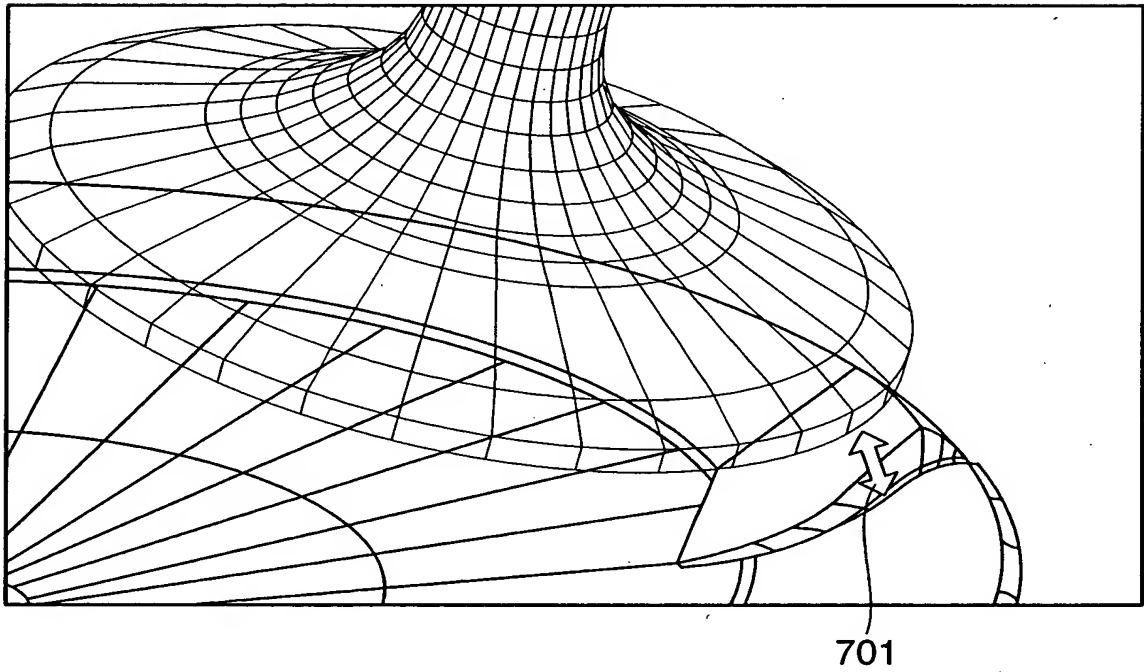


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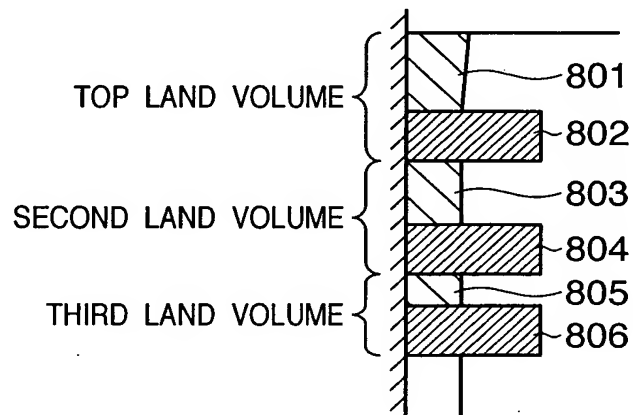
**FIG. 7A**



**FIG. 7B**



**FIG. 7C**





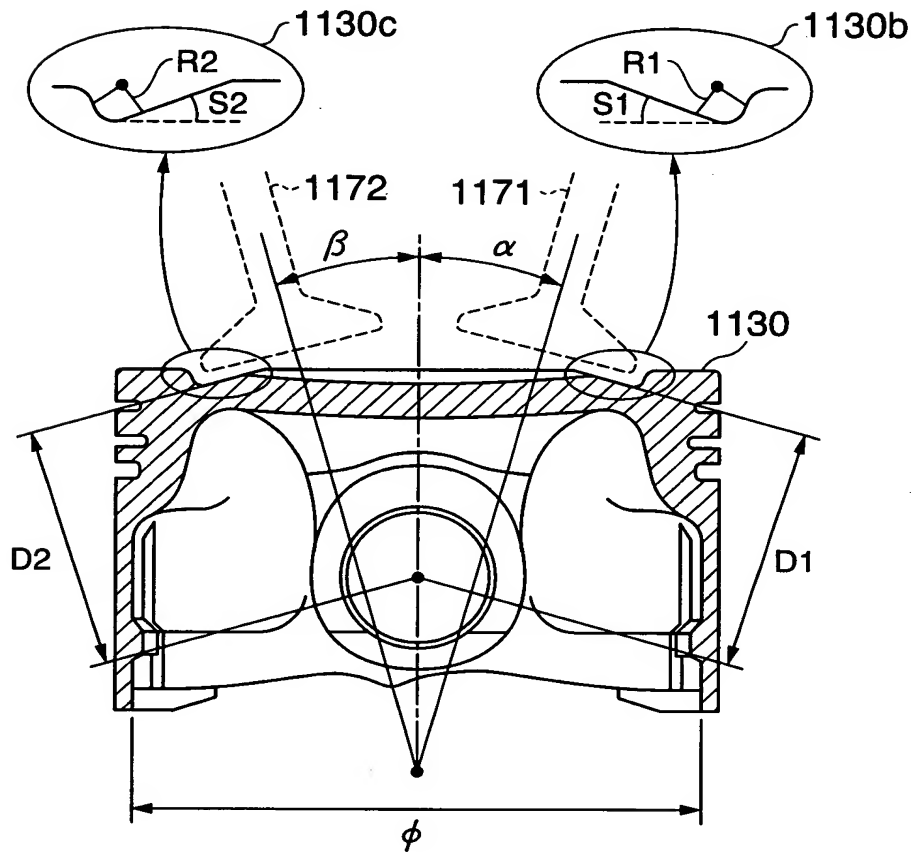
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## FIG. 8

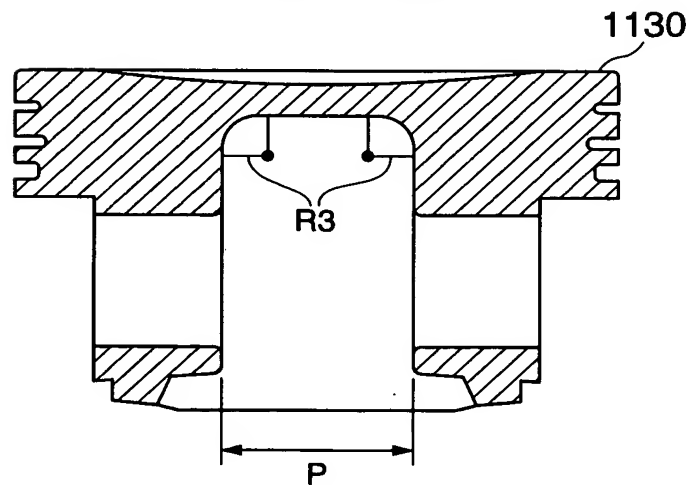
3D VERIFICATION RESULT			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<COMPRESSION RATIO>					
• TARGET COMPRESSION RATIO(INPUT VALUE) :			*.*.*.*		
• COMPRESSION RATIO(MEASUREMENT RESULT FROM 3D MODEL) :			*.*.*.*		
<GAP AND THICKNESS>		MEASURED	EVALUATION		
• VALVE-PISTON GAP		VALUE			
INTAKE VALVE SIDE :		*.* mm	<ok>		
EXHAUST VALVE SIDE :		*.* mm	<ok>		
• SHORTEST DISTANCE BETWEEN CONNECTING ROD AND CROWN BACK SURFACE :		*.* mm	<ok>		
• MINIMUM THICKNESS OF TOP RING CROOVE BACK SURFACE :		*.* mm	<ok>		
• MINIMUM THICKNESS OF CROWN BACK SURFACE :		*.* mm	<NG>		
<LAND VOLUME>					
• TOP LAND VOLUME :	1+2	*.*.*.*.*.*.*.* CC			
	1	*.*.*.*.*.*.*.* CC			
	2	*.*.*.*.*.*.*.* CC			
• SECOND LAND VOLUME :	3+4	*.*.*.*.*.*.*.* CC			
	3	*.*.*.*.*.*.*.* CC			
	4	*.*.*.*.*.*.*.* CC			
• THIRD LAND VOLUME :	5+6	*.*.*.*.*.*.*.* CC			
	5	*.*.*.*.*.*.*.* CC			
	6	*.*.*.*.*.*.*.* CC			
811		812			
PISTON 3D DISPLAY		INNER SPACE SHAPE DISPLAY			
813		814		815	
AUTOMATIC OPTIMIZATION		RE-INPUT SPECIFICATION VALUES		SAVE & END	

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**FIG. 9A**



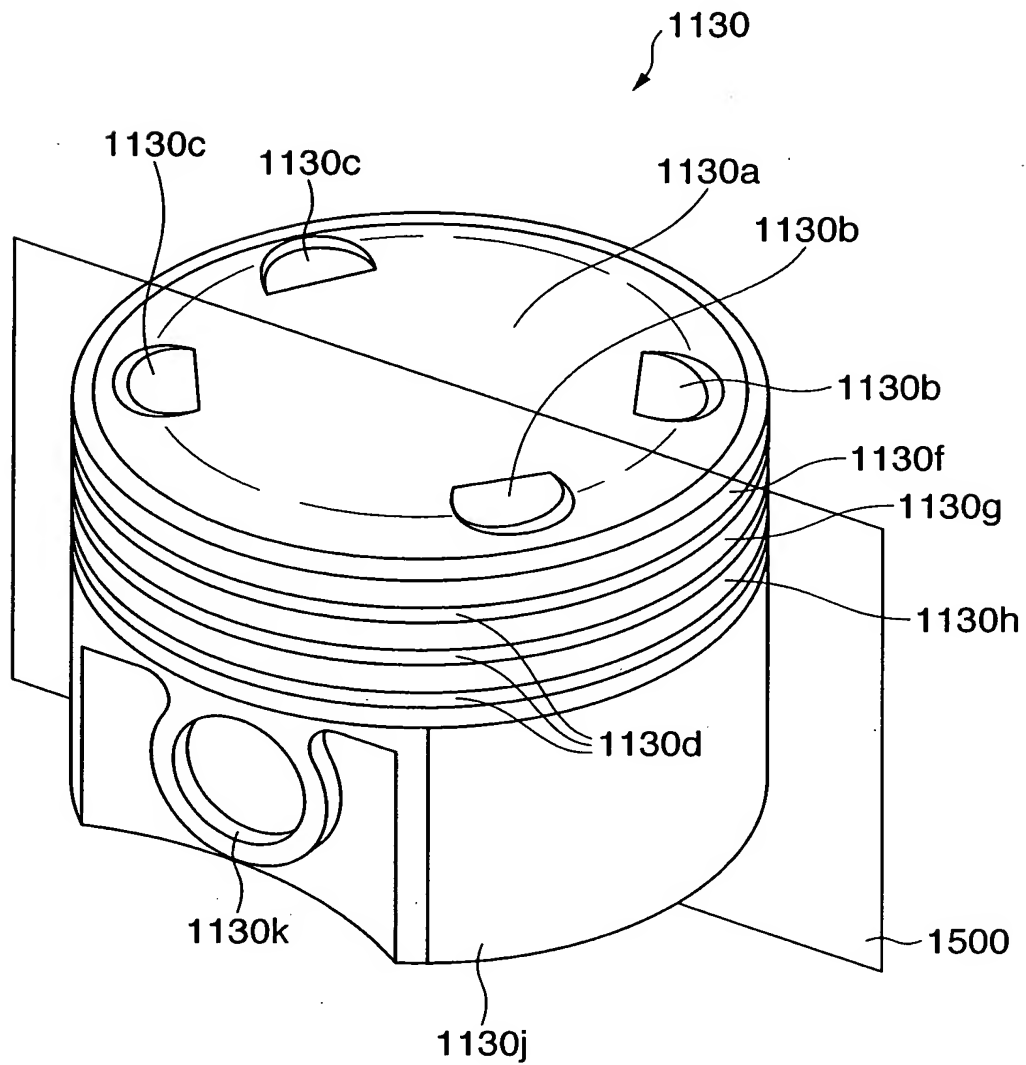
**FIG. 9B**



[illegible]

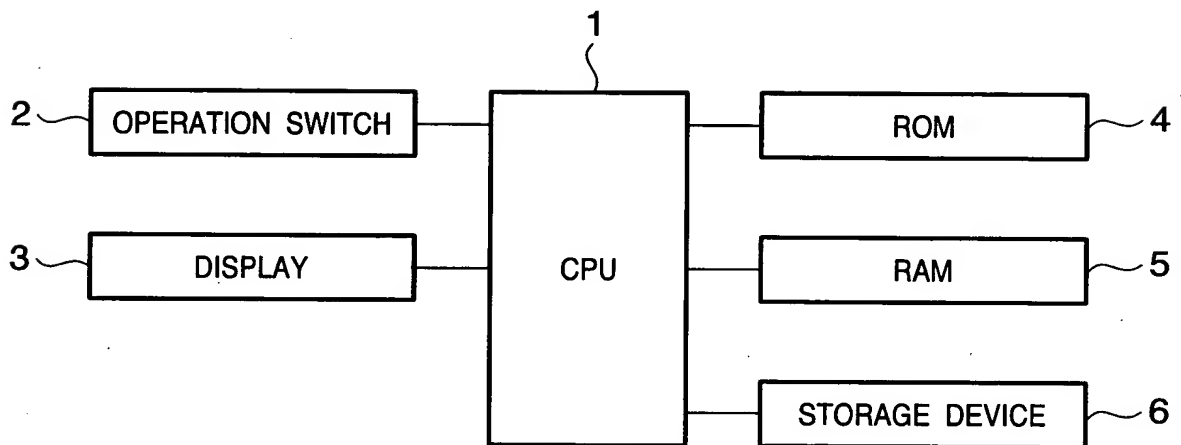
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**FIG. 11**



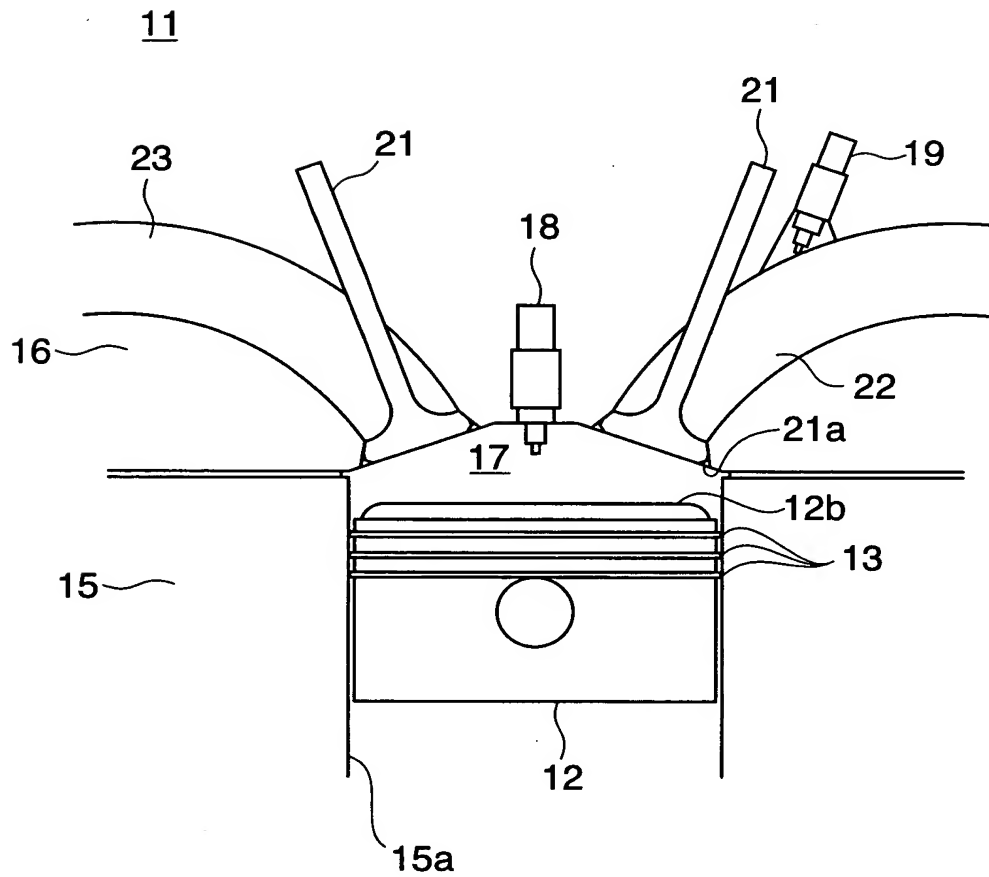
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**FIG. 12**



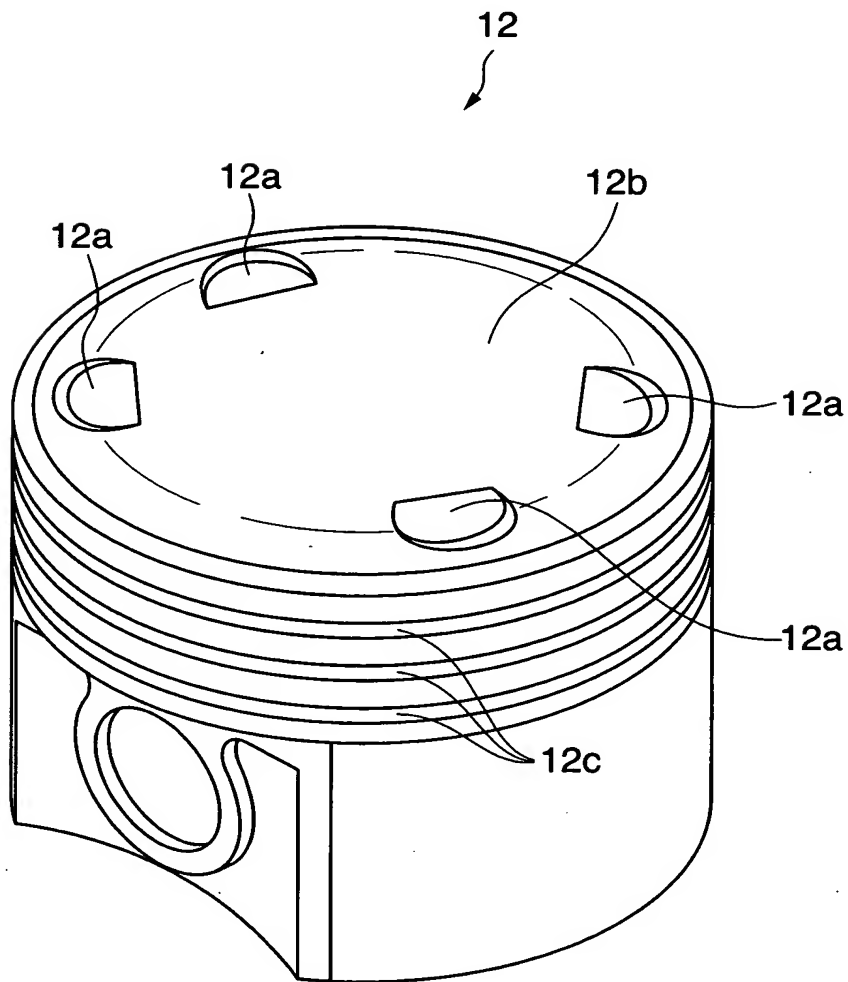
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**FIG. 13**



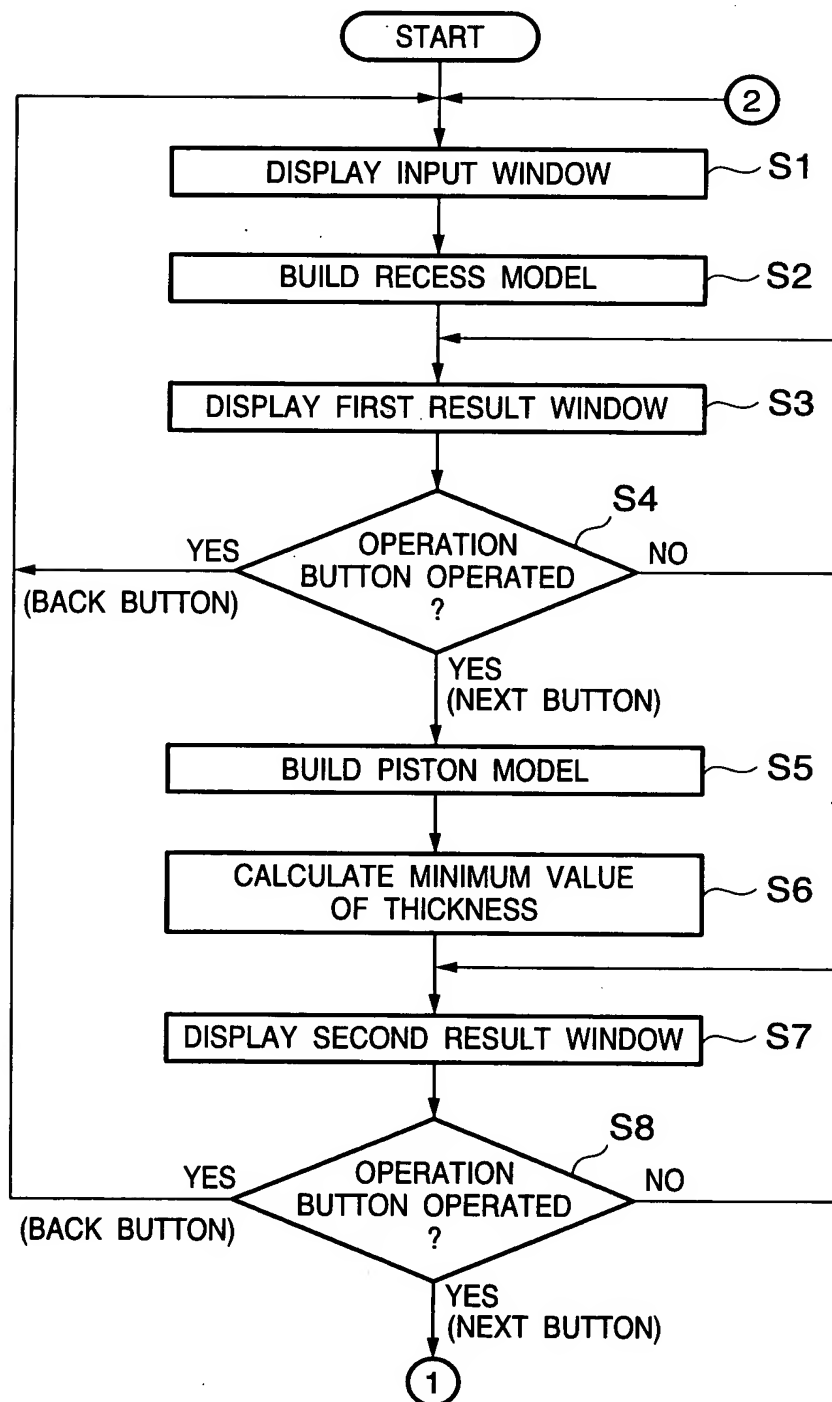
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**FIG. 14**



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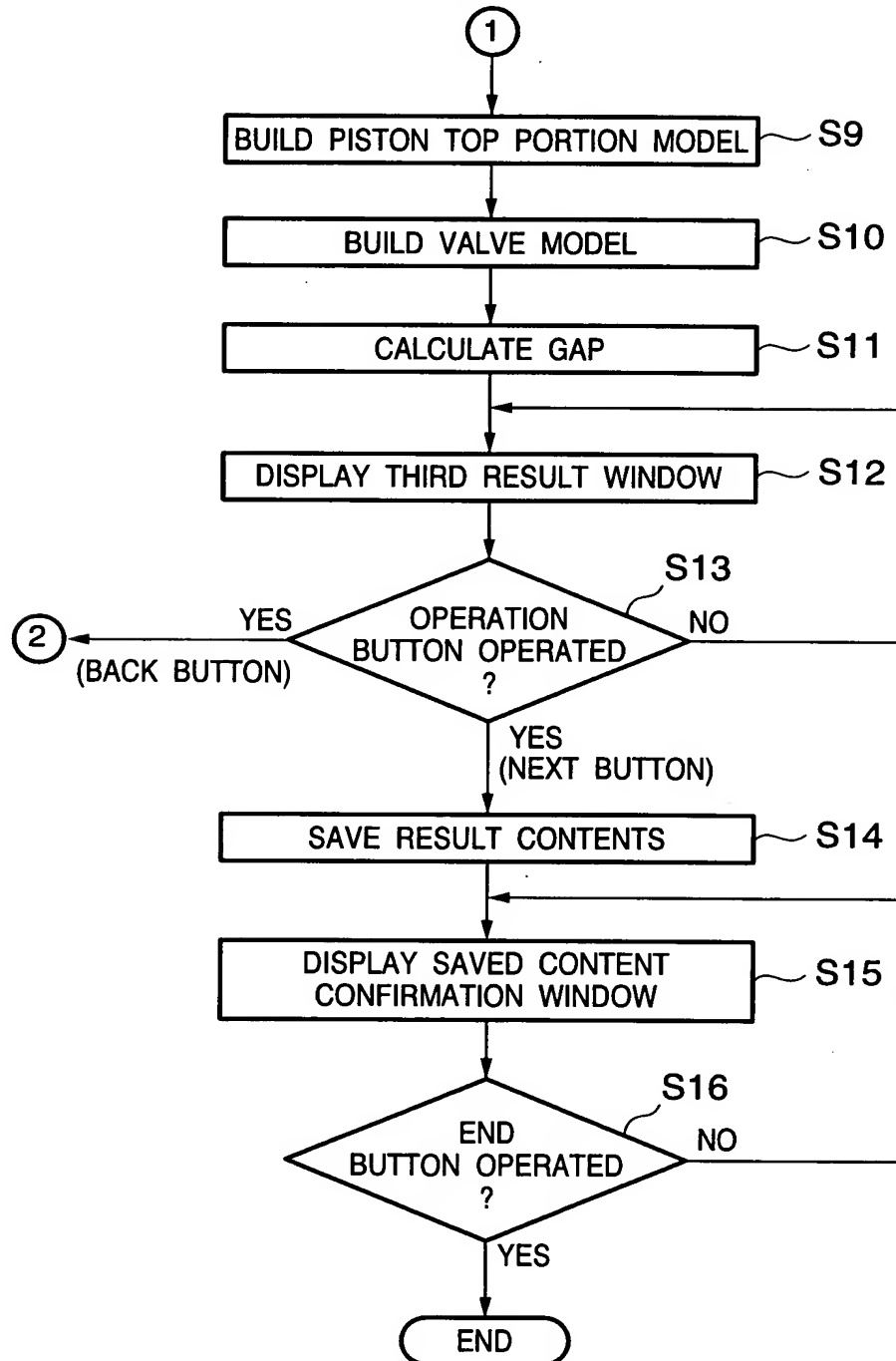
**FIG. 15**





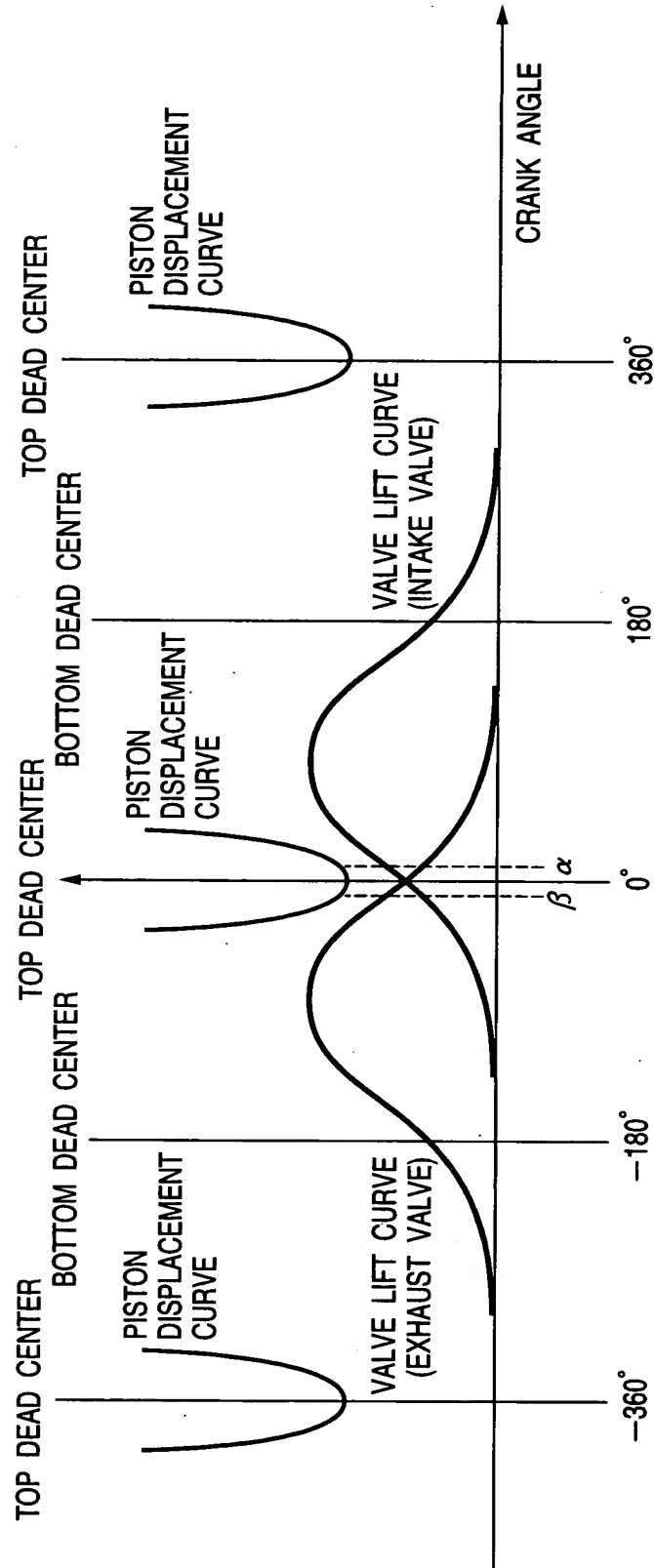
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## FIG. 16



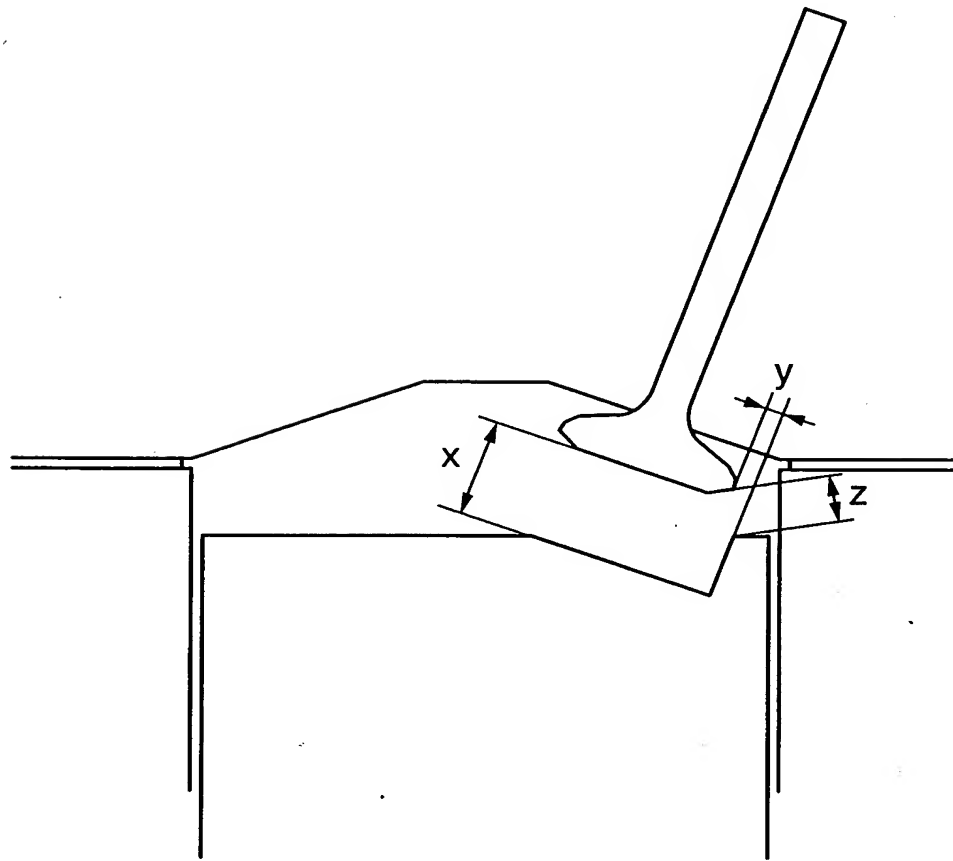
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FIG. 17



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**FIG. 18**



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**FIG. 19**

